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What is HIV?

Human Immunodeficiency Virus, also known as "HIV" is a retrovirus that destroys the essential cells of the immune system. HIV can be transmitted through the exchange of blood or other bodily fluids, either through unprotected sex, needle sharing or perinatally from mother to baby.

A person is considered to be "HIV positive" if he or she has two or more reactive HIV antibody tests, and then another antibody test that is more specific. The time between a person's infection and the development of antibodies is called the seroconversion period. People with HIV can infect others during this period. HIV can be present in the body for up to 12 or more years without producing any outward signs of illness.

Generally, risk for HIV infection is categorized by behavioral group. Men who have sex with other men (MSM) represent the greatest number of HIV/AIDS cases with a known mode of transmission^{†††} nationally and on state and local levels. Injecting drug users (IDU) represent the next largest group of persons living with HIV or AIDS in Michigan. Still, other behavioral groups are at high and increasing risk for HIV infection. Heterosexuals constitute the next largest group.²⁶

Sharing needles or syringes with an infected person is a common mode of transmission. As well, the virus can be acquired through transfusions of infected blood or blood clotting factors. This is a rare since 1985, as the blood supply for such procedures is tested for HIV antibodies in the United States. Babies born to mothers infected with HIV may become infected in utero, during delivery, or through breastfeeding after birth. The reduction of perinatal transmission of represents the best measurable success in reducing HIV transmission. This is due to the use of AZT, which is given to HIV positive pregnant women.

Acquired Immune Deficiency Syndrome, known as "AIDS", is the most serious stage of HIV infection. As the immune system becomes weaker, the infected person becomes vulnerable to diseases that do not affect the typical "healthy" person. Called *opportunistic* infections, they take advantage of the weakened state of the immune system.

The Center for Disease Control and Prevention (CDC) defines the progression from HIV to AIDS as occurring when a person is either: a) infected with HIV and has a CD4 cell count of less than 200, or b) infected with HIV and has contracted one of the opportunistic infections or neoplasms. There 26 known opportunistic infections. The most common ones are: *Pneumocystis carinii* pneumonia (PCP), yeast infections of the esophagus, Kaposi's sarcoma (a cancer of certain blood vessels), and cytomegalovirus (CMV) retinitis (an infection of the eye that can lead to blindness).

^{†††} By the end of 2000, 1,595 individuals living with HIV or AIDS in Michigan had unknown modes of transmission. Sixteen percent of the 9,749 people living with HIV or AIDS in Michigan were categorized as unknown. In past years, when undetermined cases were further investigated they were reclassified into one of the known categories of risk (i.e. MSM, IDU, heterosexual).

Why is HIV an important health issue for Detroiters?

HIV is preventable. The first U.S. cases of AIDS were identified in the early 1980s. New cases increased rapidly throughout the eighties and peaked in the early 1990s. The CDC related the peak in new diagnoses to an expansion of the definition for AIDS. Increases in AIDS diagnoses and deaths continued until 1996, when combination antiretroviral therapy was introduced. This combination therapy, an advance in HIV treatment, delays the progression to AIDS and death. The new therapy resulted in large declines in AIDS incidence and deaths beginning in 1996 and over the next several years. Unfortunately, the number of individuals newly diagnosed with HIV continued to increase. As a result of decreases in deaths *and* increasing new infections, there are now more persons living with HIV or AIDS than have ever before.

The critical nature of HIV and AIDS as health issues has not changed. There is no known cure for HIV. For groups such as racial/ethnic minorities and women, the numbers of new HIV diagnoses are increasing. Nationally, there are still 40,000 new cases of HIV each year; an incidence which has not presented a reduction in almost a decade.^{26, 27} In Michigan there are estimated to be 1100 new cases per year. Most of those cases, 760, are estimated to occur in the region of the state that includes Detroit.

HIV in Detroit

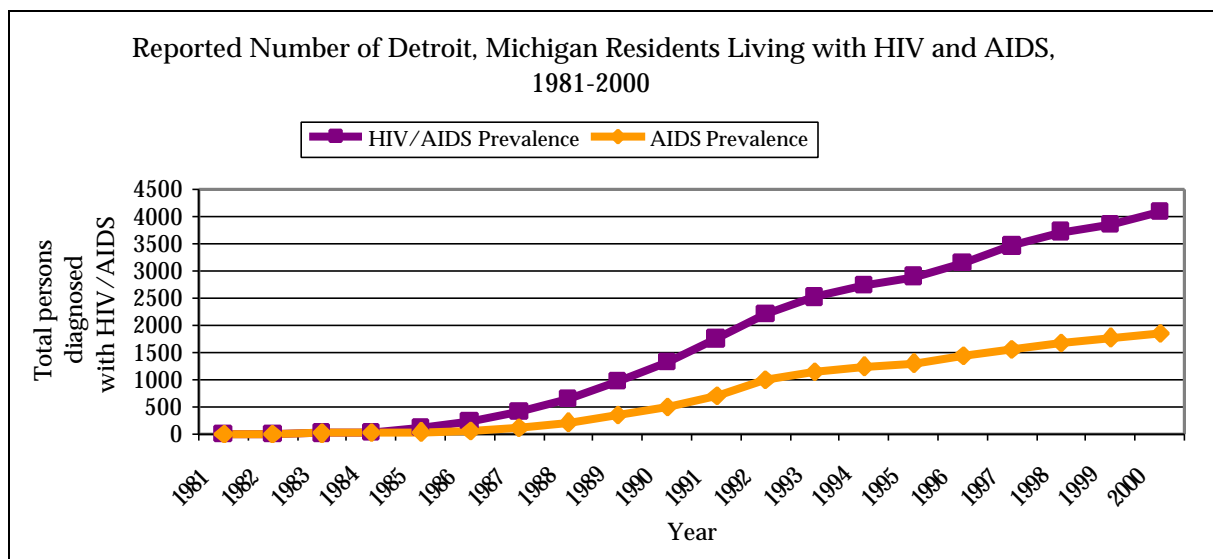


Figure 11

There is no way of knowing the number of new HIV *infections* that exist per year in any population as the virus may incubate for months or years without being diagnosed. Some people with HIV may not be diagnosed until they have progressed to AIDS. The number of new *diagnoses* can be calculated for HIV, though. The number of new diagnoses is the best current measure of how fast the HIV epidemic is spreading across populations.²⁸

Geographical regions of Michigan are used as units for monitoring the HIV epidemic and for

program planning. Several counties comprise a region, and several local health department "jurisdictions" may be located in a region. Wayne (including Detroit), Oakland, Macomb, St. Clair, and Monroe counties together are Region 1. Data for Detroit is often separated in a unique way because of the size of the city and the fact that it represents a majority of the Wayne County data. As well, Detroit has its own local health department jurisdiction.

Detroit has a significant impact on HIV infection rates for the rest of the state. By the end of year 2000, there were 4,083 people living with a diagnosis of HIV or AIDS (as shown in Figure 11). Sixty-eight percent of the living HIV/AIDS cases in Michigan reside in Region 1 of the State's surveillance areas. Of those Region 1 cases, Detroit has routinely constituted 65% of the living HIV/AIDS cases.²⁶

Of the 11,273 persons ever diagnosed with AIDS in Michigan, 5,120 (45%) have been Detroit residents.^{§§§} There are 9,749 reported Michigan residents living with HIV or AIDS. Detroit residents comprise 4,081 of those reported cases, representing 41.9% of the state's reported cases. The Michigan HIV prevalence is calculated to include as many as 13,500 residents when those cases that have not been reported or have yet to be diagnosed are considered. Detroit's estimated 6,060 HIV positive residents account for 44.8% Michigan's estimated HIV positive residents. While Michigan's estimated prevalence rate is 136 cases per 100,000 residents, an estimated prevalence rate for the city is 637 HIV cases per 100,000 Detroiters.

There are 2,020 Detroiters are living with AIDS, and 2061 are living with HIV. Eighty-eight percent of the Detroit residents living with HIV or AIDS are Black. White residents are 8.8% of those living with HIV or AIDS. Hispanic Detroiters are 2.1% of those living with HIV or AIDS. Seventy two percent of those living HIV or AIDS in Detroit are male; twenty eight percent of are female.

Over forty percent of both the HIV and AIDS cases are men who have had sex with men. The next largest behavior group (33% of AIDS, 27% of HIV) is injecting drug users. Six percent of each AIDS and HIV cases are men having sex with men who are also injecting drug users. Heterosexual residents represent 13% of those living with AIDS and 19% of those living with HIV in Detroit.

Women, particularly those of color, are at increasing risk for HIV. Ninety one percent of Detroit women with HIV or AIDS are Black, 6% are White, 2% are Hispanic, and 1% is of unknown origin. Injecting drug use is the number one mode of HIV transmission for Black women. Their second risk behavior is heterosexual sex, followed by risk that is undetermined.

Healthy People 2010 has established several HIV/AIDS related objectives. They include reducing AIDS deaths and AIDS cases among the various behavior groups and a developmental objective to reduce HIV infection overall.

§§§ as of January 1, 2001